

CLAIMS

What is desired to be secured by Letters Patent is:

1. A fishing rod comprising:
 - a) a body unit which includes
 - (1) a distal end having a tip,
 - (2) a handle end, the handle end being hollow and having a handle chamber defined therein,
 - (3) a body longitudinal axis extending between the distal end and the handle end,
 - (4) a wall extending between the distal end and the handle end, said body unit being flexible with respect to the body longitudinal axis between a flexed configuration and an unflexed configuration,
 - (5) a signal section between the distal end and the handle end, the signal section including
 - (A) a translucent wall section,
 - (B) a hollow bore which extends in the direction of the body longitudinal axis,
 - (C) a chamber in the hollow bore,
 - (D) a first end,
 - (E) a second end spaced from the first end of the signal section in the direction of

the body longitudinal axis,

(F) a first wall on the first end of the signal section, and

(G) a second wall on the second end of the signal section,

(6) a reel section located between the handle section and the signal section, and

(7) said body unit being hollow between the handle section and the signal section;

b) a power system which includes

(1) a battery section defined in the wall of said body unit and which includes an opening through the wall of said body unit in the handle section of said body unit, and

(2) a battery releasably mounted on the wall of said body unit adjacent to the opening of the battery section;

c) a light element in the signal section and which is mounted on the first wall of the signal section;

d) a light control system which includes

(1) a main on/off switch section defined in the wall of said body unit and which includes an opening through the wall of said body unit in the handle section of said body unit, the

main on/off switch section being spaced apart from the battery section in the direction of the longitudinal axis of said body unit,

- (2) a main on/off switch mounted on the wall of said body unit adjacent to the opening of the main on/off switch section, the main on/off switch being movable between an "on" configuration and an "off" configuration and having a switch lever located outside the chamber defined in the handle end of said body unit,
- (3) a first electrical conductor electrically connecting the battery to ground,
- (4) a second electrical conductor electrically connecting the battery to the main on/off switch,
- (5) a third electrical conductor electrically connected to the main on/off switch,
- (6) an activation switch located in the signal section of said body and including
 - (A) a mounting bore defined in the first wall of the signal section and which extends in the direction of the body longitudinal axis,

- (B) a mounting tube in the mounting bore and which includes a proximal end in the mounting bore and a distal end located outside of the mounting bore,
- (C) an electrically conductive pin fixedly mounted in the mounting tube and which includes a distal end that is located outside of the mounting tube, the electrically conductive pin having an outer diameter,
- (D) the third electrical conductor electrically connecting the electrically conductive pin to the main on/off switch,
- (E) a coil spring located in the signal section and which includes
 - (i) a first end fixedly mounted on the first wall of the signal section,
 - (ii) a second end spaced from the first end of the coil spring in the direction of the body longitudinal axis,
 - (iii) a spring bore defined between the first end of the coil spring and

the second end of the coil spring,

and

(iv) the coil spring being electrically conductive,

(F) the coil spring being mounted to surround the electrically conductive pin with the electrically conductive pin being located in the spring bore and extending from adjacent to the first end of the coil spring toward the second end of the coil spring,

(G) the coil spring having a diameter measured at the spring bore, the diameter of the coil spring being greater than the outer diameter of the electrically conductive pin with the electrically conductive pin being spaced apart from the coil spring when said body unit is in the unflexed configuration, the coil spring being sized and located with respect to the electrically conductive pin to be in electrical contact with the electrically conductive pin when said body unit is in

the flexed configuration,

(H) a fourth electrical conductor

electrically connecting the light bulb

to the coil spring, and

(I) a fifth electrical conductor electrically

connecting the light bulb to ground; and

e) wherein the light element is activated by flexing
of the electrically conductive pin and the coil
spring relative to each other whereat electrical
contact is made therebetween when the fishing rod
is in any orientation including vertically upward.

2. A fishing rod comprising:

- a) a flexible body having a hollow bore defined
therein;
- b) a handle section on one end of said flexible body;
- c) a tip section on a second end of said flexible
body;
- d) a translucent section between said handle section
and said tip section;
- e) a light in said translucent section;
- f) a battery in said handle section;
- g) a main on/off switch in said handle section;
- h) an activation switch located in said translucent

section and which includes

(1) an electrically conductive pin, and

(2) an electrically conductive coil spring

surrounding the electrically conductive pin;

i) an electrical conductor system which includes

(1) a first electrical conductor electrically connecting said battery to ground,

(2) a second electrical conductor electrically connecting said battery to said main on/off switch,

(3) a third electrical conductor electrically connecting said main on/off switch to said electrically conductive pin,

(4) a fourth electrical conductor electrically connecting said coil spring to said light, and

(5) a fifth electrical conductor electrically connecting said light to ground;

j) said flexible body being movable between a flexed condition and an unflexed condition; and

k) said coil spring and said electrically conductive pin being sized and positioned with respect to each other so said electrically conductive pin is in electrical contact with said coil spring when

said flexible body is in the flexed configuration and the electrically conductive pin is electrically spaced apart from said coil spring when said flexible body is in the unflexed configuration; and

- 1) wherein the light is activated by flexing of the electrically conductive pin and the electrically conductive coil spring relative to each other whereat electrical contact is made therebetween when the fishing rod is in any orientation including vertically upward.

3. A kit for retrofitting an existing fishing rod having a rear portion and a flexing portion movable between a flexed condition and an unflexed condition, the kit comprising:
 - a) a first container mountable on said rear portion of said fishing rod;
 - b) a second container mountable on said flexing portion of said fishing rod;
 - c) a translucent section in said first container;
 - d) a light in said translucent section;
 - e) a battery in said first container;
 - f) a main on/off switch in said first container;

- g) an activation switch located in said second container and which includes
 - (1) an electrically conductive pin, and
 - (2) an electrically conductive coil spring surrounding the electrically conductive pin;
- h) an electrical conductor system which includes
 - (1) a first electrical conductor electrically connecting said battery to ground,
 - (2) a second electrical conductor electrically connecting said battery to said main on/off switch,
 - (3) a third electrical conductor electrically connecting said main on/off switch to said electrically conductive pin,
 - (4) a fourth electrical conductor electrically connecting said coil spring to said light, and
 - (5) a fifth electrical conductor electrically connecting said light to ground; and wherein
- i) said coil spring and said electrically conductive pin are sized and positioned with respect to each other so said electrically conductive pin is in electrical contact with said coil spring when said flexing portion of said rod is in the flexed

condition and the electrically conductive pin is electrically spaced apart from said coil spring when said flexing portion of said rod is in the unflexed condition; and

- j) wherein the light is activated by flexing of the electrically conductive pin and the electrically conductive coil spring relative to each other whereat electrical contact is made therebetween when the fishing rod is in any orientation including vertically upward .

4. A fishing rod comprising:

- a) a flexible body unit having a first end and a second end, wherein the body unit is movable to and from a flexed condition and an unflexed condition;
- b) a handle end on the first end of the body unit;
- c) a tip portion on the second end of the body unit;
- d) at least one signal device;
- e) a battery in the handle end;
- f) a control switch;
- g) an activation switch including:
 - (1) an electrically conductive pin, and
 - (2) an electrically conductive coil spring

F

surrounding the electrically conductive pin;

h) an electrical system including:

- (1) a first electrical conductor electrically connecting the battery to a common ground conductor,
- (2) a second electrical conductor electrically connecting the battery to the control switch,
- (3) a third electrical conductor electrically connecting the control switch to the electrically conductive pin,
- (4) a fourth electrical conductor electrically connecting the coil spring to the at least one signal device, and
- (5) a fifth electrical conductor electrically connecting the at least one signal device to the common ground conductor; and

i) wherein the coil spring and the electrically conductive pin are sized and positioned with respect to each other so the pin is in electrical contact with the coil spring when the body unit is in the flexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward, and wherein the electrically conductive

pin is electrically spaced apart from and not in electrical contact with the coil spring when the body unit is in the unflexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward.

5. The fishing rod as described in claim 4, wherein the at least one signal device includes a light-emitting element that is activated when the coil spring and the electrically conductive pin are in electrical contact with each other when the body unit is in the flexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward, and wherein the light-emitting element is not activated when the coil spring and the electrically conductive pin are spaced apart from and not in electrical contact with each other when the body unit is in the unflexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward.
6. The fishing rod as described in claim 4, wherein the at

least one signal device includes a sound-emitting element that is activated when the coil spring and the electrically conductive pin are in electrical contact with each other when the body unit is in the flexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward, and wherein the sound-emitting element is not activated when the coil spring and the electrically conductive pin are spaced apart from and not in electrical contact with each other when the body unit is in the unflexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward.

7. The fishing rod as described in claim 4, wherein the at least one signal device includes a vibratory element that is activated when the coil spring and the electrically conductive pin are in electrical contact with each other when the body unit is in the flexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward, and wherein the vibratory element is not activated when the coil spring

and the electrically conductive pin are spaced apart from and not in electrical contact with each other when the body unit is in the unflexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward.

8. The fishing rod as described in claim 4, wherein the at least one signal device includes one or more of the set of signal devices comprising a light-emitting element, a sound-emitting element and a vibratory element, each of which is activated when the coil spring and the electrically conductive pin are in electrical contact with each other when the body unit is in the flexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward, and wherein each of the one or more signal devices is not activated when the coil spring and the electrically conductive pin are spaced apart from and not in electrical contact with each other when the body unit is in the unflexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward.

9. A fishing rod comprising:

a) a body unit having:

- (1) a distal end with a tip,
- (2) a handle end with a handle chamber therein,
- (3) a body longitudinal axis extending between the distal end and the handle end,
- (4) an intermediate member extending between the distal end and the handle end and being flexible relative to the body longitudinal axis between a flexed condition and an unflexed condition,
- (5) a signal unit spaced between the distal end and the handle end wherein the signal unit includes
 - (A) a translucent wall portion,
 - (B) a signal cavity which extends in the direction of the body longitudinal axis, and
 - (C) a chamber in the signal cavity having a first end and a second end spaced apart from the first end in the direction of the body longitudinal axis,
- (6) a reel section located between the handle portion and the signal unit, and

(7) said intermediate member being hollow between the handle portion and the signal unit;

b) a power system which includes

- (1) a battery section defined in the wall of the body unit and which includes an opening through the wall of the body unit in the handle portion, and
- (2) a battery releasably mounted on the wall of the body unit adjacent to the opening of the battery section;

c) one or more signal devices from the set comprising a light-emitting element, a sound-emitting element and a vibratory element, each mounted near the second wall of the signal section;

d) a signal control system which includes

- (1) a control switch section defined in the wall of the body unit and which includes an opening through the wall of the body unit in the handle section of the body unit, the control switch section being spaced apart from the battery section in the direction of the longitudinal axis of the body unit,
- (2) a control switch mounted on the wall of the body unit adjacent to the opening of the

control switch section, the control switch being movable between an "on" configuration and an "off" configuration and having a switch lever located outside the chamber defined in the handle end of the body unit,

- (3) a first electrical conductor electrically connecting the battery to a common ground conductor,
- (4) a second electrical conductor electrically connecting the battery to the control switch,
- (5) a third electrical conductor electrically connected to the control switch,
- (6) an activation switch located in the signal section of the body unit and including
 - (A) a mounting bore defined in the first wall of the signal section and which extends in the direction of the body longitudinal axis,
 - (B) a mounting tube in the mounting bore and which includes a proximal end in the mounting bore and a distal end located outside of the mounting bore,
 - (C) an electrically conductive pin fixedly mounted in the mounting tube and which

includes a distal end that is located outside of the mounting tube, the electrically conductive pin having an outer diameter,

- (D) the third electrical conductor electrically connecting the electrically conductive pin to the control switch,
- (E) a coil spring located in the signal section and which includes
 - (i) a first end fixedly mounted on the first wall of the signal section,
 - (ii) a second end spaced from the first end of the coil spring in the direction of the body longitudinal axis,
 - (iii) a spring bore defined between the first end of the coil spring and the second end of the coil spring, and
 - (iv) the coil spring being electrically conductive,
- (F) the coil spring being mounted to surround the electrically conductive pin with the electrically conductive pin being

located in the spring bore and extending from adjacent to the first end of the coil spring toward the second end of the coil spring, and

- (G) the coil spring having a diameter measured at the spring bore, the diameter of the coil spring being greater than the outer diameter of the electrically conductive pin with the electrically conductive pin being spaced apart from the coil spring when the body unit is in the unflexed condition, the coil spring being sized and located with respect to the electrically conductive pin to be in electrical contact with the electrically conductive pin when the body unit is in the flexed condition,
- (7) a fourth electrical conductor electrically connecting the one or more signal devices to the coil spring, and
- (8) a fifth electrical conductor electrically connecting the one or more signal devices to the common ground conductor; and

e) wherein each of the one or more signal devices is

activated when the coil spring and the electrically conductive pin are in electrical contact with each other when the body unit is in the flexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward, and wherein each of the one or more signal devices is not activated when the coil spring and the electrically conductive pin are spaced apart from and not in electrical contact with each other when the body unit is in the unflexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward.

10. A kit for retrofitting an existing fishing rod having a rear portion and a flexible portion movable between a flexed condition and an unflexed condition, the kit comprising:
 - a) a first container mountable on said rear portion of said fishing rod;
 - b) a second container mountable on said flexible portion of said fishing rod;

- c) at least one signal device in the first container;
- d) a battery in the first container;
- e) a control switch in the first container;
- f) an activation switch located in the second container, the activation switch including:
 - (1) an electrically conductive pin, and
 - (2) an electrically conductive coil spring surrounding the electrically conductive pin;
- g) an electrical system including
 - (1) a first electrical conductor electrically connecting the battery to a common ground conductor,
 - (2) a second electrical conductor electrically connecting the battery to the control switch,
 - (3) a third electrical conductor electrically connecting the control switch to the electrically conductive pin,
 - (4) a fourth electrical conductor electrically connecting the coil spring to the at least one signal device, and
 - (5) a fifth electrical conductor electrically connecting the at least one signal device to the common ground conductor; and
- h) wherein the coil spring and the electrically

conductive pin are sized and positioned with respect to each other so the pin is in electrical contact with the coil spring when the flexible portion is in the flexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward, and wherein the electrically conductive pin is electrically spaced apart from and not in electrical contact with the coil spring when the flexible portion is in the unflexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward.

11. The kit as described in claim 10, wherein the at least one signal device includes a light-emitting element that is activated when the coil spring and the electrically conductive pin are in electrical contact with each other when the flexible portion is in the flexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward, and wherein the light-emitting element is not activated when the coil spring and the electrically conductive pin are spaced apart

from and not in electrical contact with each other when the flexible portion is in the unflexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward.

12. The kit as described in claim 10, wherein the at least one signal device includes a sound-emitting element that is activated when the coil spring and the electrically conductive pin are in electrical contact with each other when the flexible portion is in the flexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward, and wherein the sound-emitting element is not activated when the coil spring and the electrically conductive pin are spaced apart from and not in electrical contact with each other when the flexible portion is in the unflexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward.
13. The kit as described in claim 10, wherein the at least one signal device includes a vibratory element that is

activated when the coil spring and the electrically conductive pin are in electrical contact with each other when the flexible portion is in the flexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward, and wherein the vibratory element is not activated when the coil spring and the electrically conductive pin are spaced apart from and not in electrical contact with each other when the flexible portion is in the unflexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward.

14. The kit as described in claim 10, wherein the at least one signal device includes one or more of the set of signal devices comprising a light-emitting element, a sound-emitting element and a vibratory element, each of which is positioned in either the first container or the second container and is activated when the coil spring and the electrically conductive pin are in electrical contact with each other when the flexible portion is in the flexed condition and is positioned in any orientation including upright, upside down,

sidewise, vertically upward, or vertically downward, and wherein each of the one or more signal devices is not activated when the coil spring and the electrically conductive pin are spaced apart from and not in electrical contact with each other when the flexible portion is in the unflexed condition and is positioned in any orientation including upright, upside down, sidewise, vertically upward, or vertically downward.